

REMARKS

Claims 1 and 3-14 are pending in this application. Claims 13 and 14 are newly presented. Claims 1 and 3-12 have been rejected. Claims 1 and 3-6 have been amended. Claim 1 is independent.

Support for the changes to the claims can be found throughout the application as filed. By way of non-limiting example, various changes to claim 1 find support in Fig. 5, and at page 10, line 20, through page 11, line 8, of the application.

In part, claim 1 has been revised to eliminate a claim feature that had been added in the prior Amendment, because the feature, which states that the antenna portion is provided so as to occupy at least 70% of one wall surface region of the container, now is not believed to be necessary to distinguish over the cited art.

The claims also have been revised to refer to a memory unit, and to state the memory unit has a memory section. Those skilled in the art will appreciate the memory unit can correspond to the IC 15, while the memory section can correspond to the EEPROM 8, and which are both discussed in the specification. This explanation, it should be understood, is by way of illustration only, and not limitation.

The claims also now provide for an antenna portion, rather than a communication unit. Also by way of illustration only and not limitation, the disclosure teaches an antenna portion 10 can include a base 11 as insulating film and a conductive layer 12 having a rectangular conductive pattern.

Claims 1, 3, 4, 6, 8, 9 and 11 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Appln. Publn. No. 2002/0063760 to Dietl et al. in view of

U.S. Patent No. 5,870,125 to Swanson et al. and further in view of Japanese Laid-Open Patent Appln. No. 2000-255080 to Watabiki.¹ Applicants respectfully traverse this rejection and submit the following arguments in support thereof.

Applicants' invention, as described in claim 1, involves a liquid cartridge having a container with a liquid supply port connectable to a flowing path communicating with a recording head of a liquid jet printer, the container being a bottomed-box type container having the liquid supply port, and a lid member sealing an opening portion of the container, a memory unit including a memory section storing therein data about a liquid housed in the container and an electric power generating section, and an antenna portion provided on a wall opposed to a wall in which the liquid supply port is formed, and including a rectangular conductive pattern electrically connected to the memory unit, which communicates the data in the memory section to a recording apparatus by radio. The antenna portion can receive a carrier wave, which is converted into DC electric power by the electric power generating section to become working electric power.

The Office Action **admits** that Dietl does not suggest the communication unit be provided on a wall opposed to the wall in which the liquid supply port is formed.

Although the Office Action contends that Watabiki remedies this deficiency, the Office Action misinterprets Watabiki. The structure of Watabiki that the Office Action contends is a liquid supply port, element 5, is not a liquid supply port from which liquid flows out of the

¹ Referred to in the Office Action as "Kazuo". This reference is properly characterized as Watabiki because the listing of inventors in the PTO's EAST abstract is in last name, first name order, so for this entry, reading "Watabiki, Kazuo", the inventor's last name is "Watabiki".

ink cartridge to the printing apparatus.² Element 5 is a **print head**. So Watabiki does not teach a liquid supply port, meaning Watabiki cannot suggest the antenna portion be provided on a wall opposed to a wall in which the liquid supply port is formed, as claimed.

Since Watabiki is in Japanese, Applicants have submitted a machine English translation of Watabiki. This translation states in paragraph [0010] that element 5 is a printhead.

Nor does Swanson remedy Watabiki's deficiencies. As is clear from Figs. 3 and 6A of Swanson, Swanson teaches an ink cartridge with approximately the same shape and arrangement as the ink cartridge shown in Figs. 1 and 2 of Watabiki. Swanson's structure 75 corresponds to Watabiki's print head - Swanson states that a TIJ printhead is secured at the end 77 of structure 75, the pen snout region (col. 3, lines 59-61). So Swanson suffers from the same shortcomings regarding the liquid supply port as Watabiki.

Since none of the cited references, whether taken alone or in combination, suggests all the features of the present invention, the claimed invention patentably distinguishes over those references. Accordingly, favorable reconsideration and withdrawal of this rejection are respectfully requested.

Claim 5 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Dietl in view of Swanson, and further in view of Watabiki and Japanese Laid-Open Patent

² Those skilled in the art will appreciate that this is because Watabiki describes an ink cartridge having an integral print head. Such an ink cartridge would not have a liquid supply port from which liquid flows to a printing apparatus as is claimed.

Appln. No. 2000-203047 to Shoji.³ Applicants respectfully traverse this rejection and submit the following arguments in support thereof.

Claim 5 ultimately depends from and so incorporates by reference all the features of claim 1, including those features just shown to avoid Dietl, Swanson and Watabiki. Claim 5 therefore patentably distinguishes over those references at least for the same reasons as already have been given for claim 1, which reasons are incorporated by reference herein.

Since Shoji is in Japanese, Applicants have submitted a machine English translation of Shoji.

Shoji only is cited as teaching a detection unit coupled to an antenna on a circuit board attached to an ink cartridge. Regardless of whether that is correct, Shoji does not remedy the deficiencies of the other references.

Shoji teaches an ink cartridge with an integral print head, as is clear from Figs. 3, 5 and 8, which depict ink cartridges having recording heads IJH located on their lower surfaces (see paragraphs [0031] and [0038]). So Shoji does not suggest the aspects of the present invention already shown to patentably distinguish over Dietl, Swanson and Watabiki.

Accordingly, favorable reconsideration and withdrawal of this rejection are respectfully requested.

Claims 7 and 12 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Dietl in view of Swanson and further in view of Watabiki and U.S. Patent No.

³ Referred to in the Office Action as "Michiharu". Again, this reference is properly characterized as Shoji because the listing of inventors in the PTO's EAST abstract is in last name, first name order, so for this entry, reading "Shoji, Michiharu", the inventor's last name is "Shoji".

5,619,237 to Inoue et al. Applicants respectfully traverse this rejection and submit the following arguments in support thereof.

Claims 7 and 12 both depend from and so incorporate by reference all the features of claim 1, including the features already shown to avoid Dietl, Swanson and Watabiki. Claims 7 and 12 therefore patentably distinguish over those references at least for the same reasons as already have been given for claim 1, which reasons are incorporated by reference herein.

Inoue is cited as teaching a color ink cartridge with a particular shape. Regardless of whether that is correct, Inoue does not remedy the deficiencies of the other references.

As shown in Figs. 12, 15 and 23, Inoue teaches recording head cartridges having integral recording heads (see col. 15, lines 4-17). Figs. 15 and 16 show that ink container 30 has an ink delivery (supply) port 32b, and is mounted in head cartridge 1 (col. 15, lines 30-31). Those skilled in the art will appreciate that this still does not suggest the present invention because the ink delivery (supply) port is not for connection to the ink jet printer, but rather, to the head cartridge 1 in which the ink container 30 is mounted.

Even if Inoue's ink delivery (supply) port 32b is considered to suggest the claimed liquid supply port, it remains that there is no teaching in this or any of the other references as to where an antenna portion should be provided relative to that ink delivery (supply) port, much less that the antenna portion be positioned as claimed, on a wall opposed to a wall in which the liquid supply port is formed. The antenna could just as easily be located on a different wall.

So Inoue does not remedy the deficiencies of the other references, meaning the claimed invention patentably distinguishes over the cited art at least for the reasons already given with regard to Dietl, Swanson and Watabiki.

For all the foregoing reasons, favorable reconsideration and withdrawal of this rejection are respectfully requested.

Claim 10 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Dietl in view of Swanson and further in view of Watabiki and U.S. Patent No. 6,459,588 to Morizumi et al. Applicants respectfully traverse this rejection and submit the following arguments in support thereof.

Claim 10 depends from and so incorporates by reference all the features of claim 1, including those features already shown to avoid Dietl, Swanson and Watabiki. Claim 1 therefore patentably distinguishes over those references at least for the same reasons as already have been given for claim 1, which reasons are incorporated by reference herein.

Morizumi only is cited as teaching providing protective layers over an antenna portion. Even assuming *arguendo* that this is correct, it remains that Morizumi, which is directed to an IC card and ways of forming the same, does not remedy the above-noted deficiencies of Dietl, Swanson and Watabiki.

Accordingly, favorable reconsideration and withdrawal of this rejection are respectfully requested.

CONCLUSION

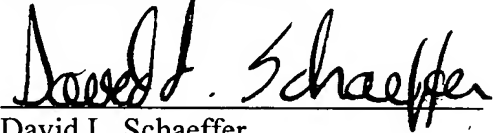
Applicants have made a diligent effort to place this application in condition for allowance and submit that the claims are in condition for allowance. If for any reason, however, the Examiner should deem that this application is not in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below to resolve any outstanding issues prior to issuing a further Office Action.

No fees are believed to be due in connection with the filing of this Amendment.

Nevertheless, the Commissioner is authorized to charge any fee now or hereafter due in connection with the prosecution of this application to Deposit Account No. 19-4709.

Prompt and favorable consideration are respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "David L. Schaeffer", is written over a horizontal line.

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